

**DECLARATION FOR PATENT APPLICATION (JOINT OR SOLE)**

(Under 37 CFR § 1.63; with Power of Attorney)

**FROMMER LAWRENCE & HAUG LLP**

FLH File No. 450100-03001

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention ENTITLED:

**INFORMATION PROCESSING APPARATUS USING CLASS-CLASSIFICATION ADAPTIVE PROCESSING**

the specification of which

X is attached hereto.

\_\_\_\_\_ was filed on \_\_\_\_\_ as Application Serial No. \_\_\_\_\_,

with amendment(s) through \_\_\_\_\_ (if applicable, give dates).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Sec. 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)	(list additional applications on separate page):	Priority Claimed:		
Number:	Country:	Filed (Day/Month/Year):	Yes	No
2000-033313	Japan	10 February 2000	X	
2000-392274	Japan	25 December 2000		X

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code § 112, I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Sec. 1.56, which became available between the filing date of the prior application and the national or PCT international filing date of this application:

Prior U.S. Application(s)	(list additional applications on separate page):	Status (patented, pending, abandoned):
Appl. Ser. Number:	Filed (Day/Month/Year):	

I hereby appoint WILLIAM S. FROMMER, Registration No. 25,506, and DENNIS M. SMID, Registration No. 34,930 or their duly appointed associate, my attorneys, with full power of substitution and revocation, to prosecute this application, to make alterations and amendments therein, to file continuation and divisional applications thereof, to receive the Patent, and to transact all business in the Patent and Trademark Office and in the Courts in connection therewith, and specify that all communications about the application are to be directed to the following correspondence address:WILLIAM S. FROMMER, Esq.  
c/o FROMMER LAWRENCE & HAUG LLP  
745 Fifth Avenue  
New York, New York 10151Direct all telephone calls to:  
(212) 588-0800  
to the attention of:  
WILLIAM S. FROMMER

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

**INVENTOR(S):**

Signature: \_\_\_\_\_

Full name of sole or first inventor: \_\_\_\_\_

Residence: \_\_\_\_\_

Citizenship: \_\_\_\_\_

Tetsujiro KONDO  
Tokyo, Japan  
Japan

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Full name of 2nd joint inventor (if any): \_\_\_\_\_

Residence: \_\_\_\_\_

Citizenship: \_\_\_\_\_

Hideo NAKAYA  
Kanagawa, Japan  
Japan

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Full name of 3rd joint inventor (if any): \_\_\_\_\_

Residence: \_\_\_\_\_

Citizenship: \_\_\_\_\_

Tsutomu WATANABE  
Kanagawa, Japan  
Japan

Date: \_\_\_\_\_

(Similarly list additional inventors on separate page)

Post Office Address(es) of inventor(s): \_\_\_\_\_

[if all inventors have the same post office address]

Sony Corporation  
7-35 Kitashinagawa 6-chome  
Shinagawa-Ku, Tokyo 141, Japan

Note: In order to qualify for reduced fees available to Small Entities, each inventor and any other individual or entity having rights to the invention must also sign an appropriate separate "Verified Statement (Declaration) Claiming for Supporting a Claim by Another for Small Entity Status" form [e.g. for Independent Inventor, Small Business Concern, Nonprofit Organization, individual Non-Inventor].

Note: A post office address must be provided for each inventor.

## ADDITIONAL INVENTORS

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Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Full name of 4th joint inventor (if any): Hideki OHTSUKA  
Residence: Kanagawa, Japan  
Citizenship: Japan

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Full name of 5th joint inventor (if any): Yasuaki TAKAHASHI  
Residence: Kanagawa, Japan  
Citizenship: Japan

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Full name of 6th joint inventor (if any): Seiji WADA  
Residence: Kanagawa, Japan  
Citizenship: Japan

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Full name of 7th joint inventor (if any): Takahiro NAGANO  
Residence: Kanagawa, Japan  
Citizenship: Japan

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Full name of 8th joint inventor (if any): Koji OHTA  
Residence: Tokyo, Japan  
Citizenship: Japan

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Full name of 9th joint inventor (if any): Hisakazu SHIRAKI  
Residence: Kanagawa, Japan  
Citizenship: Japan

statistically obtained. It is assumed that a regression straight line of  $(q, L)$  shown in Fig. 33 is identical with the straight line indicated by the expression (5).

If "b" is known, "a" is calculated by the expression (6).

$$a = (B - nb)/A \quad (6)$$

If "a" is known, "b" is calculated by the expression (7).

$$b = (B - Aa)/n \quad (7)$$

Where, n indicates the number of points  $(q, L)$ , A indicates  $\Sigma x$ , and B indicates  $\Sigma y$ .

The dynamic range DR is calculated by the expression (8).

$$\begin{aligned} DR &= (\Sigma L' - N*MIN)/(\Sigma q)*2^0 \\ &= (((DR'/2^0)*Y) + N*MIN' - N*MIN)/X*2^0 \\ &= (N*(MIN' - MIN)*2^0 + DR'*Y)/(X*2^0) \quad (8) \end{aligned}$$

As shown in Fig. 34A, when the number of blocks having no missing pixel and being adjacent to a block for which the dynamic range DR or the minimum value MIN of pixel values is to be recovered is called  $n_1$ , N equals  $\Sigma n_1$ . In Figs. 34A and 34B, hatched squares indicate blocks for which the dynamic range DR or the minimum value MIN of pixel values is to be recovered. In Figs. 34A and 34B, not-hatched squares indicate blocks having no missing pixel. When a block for which the dynamic range DR or the minimum value MIN of pixel